

Recovery Plan Action Status

Plan Name: Wyoming Toad

Plan Status: Final

Plan Date: 11-Sep-91

Lead Agency: USFWS

Lead Office: Wyoming Ecological Services Field Office

(507)

772-2374)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	1	Monitor existing populations & habitat	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, Wyoming Cooperative Fish and Wildlife Research Unit	Other	Internal Field Assistance, Volunteer	Informal surveys conducted by USFWS, WGFD, UW,TNC. Censuses (2/yr.) conducted 1993-2006. Formal surveys (3/year) conducted 2008-2010 by USFWS, AZA Zoo Volunteers, WGFD, BLM, and WYNDD. Results
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	1.1	2008 Monitoring of Wyoming toads at Mortenson Lake through systematic surveys conducted by 33 volunteers from 9 Aquarium and Zoo Association (AZA)institutions in the U.S. and Canada.	Complete	FY 2008	FY 2008		Research: Population Surveys	Volunteer	This effort was the first systematic (repeatable) survey of Wyoming toads at Mortenson Lake. It was accomplished through volunteers from the AZA and Wyoming Field Office staff. This effort is a way for AZA institutions, which cannot house Wyoming toads, to contribute to Wyoming Toad conservation. It is possible this effort will continue next year and, hopefully, for many years.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	2	1.1	2008 Monitoring of Wyoming Toads at Mortenson Lake through systematic surveys conducted by volunteers from AZA, Wyoming ES Field Office Staff, Wyoming Game and Fish Department, and Wyoming Natural Diversity Database (University of Wyoming)	Ongoing Current			U.S. Fish and Wildlife enhancement	Management: Population Monitoring	Internal Field Assistance, Internal Technical Assistance, Volunteer	Results of three monitoring efforts in 2008: 12 Adult toads, 24 Young-of-the-year.
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	1.2	2009 Monitoring of Wyoming toads at Mortenson Lake through systematic surveys conducted by volunteers from AZA, Wyoming ES Field Office Staff, Wyoming Game and Fish Department, and Wyoming Natural Diversity Database (University of Wyoming)	Ongoing Current			U.S. Fish and Wildlife enhancement	Management: Population Monitoring	Volunteer	This is the second year of systematic population surveys at Mortenson Lake National Wildlife Refuge. Results: 6 Adults, 18 Overwintered toads, 1 young-of-the-year
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	1.3	2010 Monitoring of Wyoming toads at Mortenson Lake through systematic surveys conducted by volunteers from AZA, Bureau of Land Management, and Wyoming ES Field Office Staff, Wyoming Game and Fish Department, and Wyoming Natural Diversity Database (University of Wyoming)	Ongoing Current			U.S. Fish and Wildlife enhancement	Management: Population Monitoring	Volunteer	This is the third year of systematic population monitoring at Mortenson Lake National Wildlife Refuge

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Wyoming Toad (Bufo baxteri (=hemiophrys))	1	10	Develop funding sources	Ongoing Current	FY 2000 - FY 2004		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Research: Disease, Research: Environmental Contaminants, Research: Other Information	Contract, Internal Field Assistance, Internal Technical Assistance	2002:USGS obtains grant to conduct research to develop monitoring program; Saratoga NFH obtains grant to conduct Chytrid screening in Laramie Basin, conduct water quality assessment at captive breeding facilities and for prlim. analysis of animals in a hypovitaminosis investigation. 2008 USFWS obtains ?Preventing Extinction? grant to investigate genetics of the Wyoming toad.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	11	Encourage favorable land practices	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USDA Animal and Plant Health Inspection Service, Bureau Land Management , Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	2 Safe Harbor Agreements with private landowners completed FY 2006 facilitated by Laramie River Conservation District, including grazing, herbicide application, and haying management criteria. Yearly grazing plans for Mortenson Lake and SHA sites.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	12	Manage introduced populations	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, The Nature Conservancy, Bureau Land Management , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife Service, Division of Refuges and Wildlife, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1992 Fishing Club lease on Soda Lake terminated. 1999 Fishing Club lease at Mortenson Lake terminated & game fish stocking ended. 1999 Taylor PhD diss. published on causes of mortality in WY toad. 2000 mark recapture pilot study done through UW Coop. Unit.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	2	13	Enforce laws and regulations	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, U.S. Fish and Wildlife Service, Law Enforcement Division, Environmental Protection Agency , Bureau Land Management , Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	14	Inform agencies	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	15	Ensure Section 7	Ongoing Current	Prior to FY 1995		USDA Animal and Plant Health Inspection Service, Environmental Protection Agency , Bureau Land Management , Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Section 7 Consultation complete for all projects with potential impacts. For example, Buford Foundation Property wetland restoration in 2003, and for Safe Harbor Agreements completed FY2006.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	16	Promote public awareness & cooperation	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, Bureau Land Management , Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	2 Safe Harbor Agreements with private landowners completed FY 2006 facilitated by Laramie River Conservation District. 2009 Presentation to ?Camp Confidence? participants at Buford Foundation.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	2	17	Maintain working groups	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	PHVA Work Group. Recovery Team assigns tasks on as needed basis. Recovery Team has working groups that are assigned specific tasks.
Wyoming Toad (Bufo baxteri (=hemiophrys))	3	18	Identify taxonomic status	Complete	Prior to FY 1995	Prior to FY 1995	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center	Work type not yet selected	Labor type not yet selected	1997 Smith et al. publication on taxonomic status of WY toad: established toad as a full species.
Wyoming Toad (Bufo baxteri (=hemiophrys))	3	19	Evaluate taxonomic status	Complete	Prior to FY 1995	FY 1995 - FY 1999	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	1997 Smith et al. publication
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	2	Survey additional populations	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	Other agency assistance is encouraged. i.e., BLM, EPA, SCS. 2009 BLM initiated informal amphibian surveys in Albany County, Wyoming.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	3	20	Consultation and comment on projects	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USDA Animal and Plant Health Inspection Service, Environmental Protection Agency , Bureau Land Management , Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	All conservation actions/projects reviewed by USFWS and/or WGFD and/or Recovery Team
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	21	Implement protective measures	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USDA Animal and Plant Health Inspection Service, Bureau Land Management , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1992 Fishing Club lease on Soda Lake terminated. 1999 Fishing Club lease at Mortenson Lake terminated & game fish stocking ended. 1999 Taylor PhD diss. published on causes of mortality in WY toad.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	22	Implement enhancement measures	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, Soil Conservation Service , USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Managed grazing on Buford Foundation Property and on properties included in Safe Harbor Agreement.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	23	Compensate landowners	Not Started			USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	24	Acknowledge coop.	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Awards and recognition given to private landowners, conservation district personnel, and USFWS employees actively participating in WY toad recovery activities.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	2	25	Refine life history information	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	1992 Wither's M.S. on habitat use & LH. 2000 Parker's M.S. on hab. use & movement
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	26	Improve techniques	Ongoing Current	FY 2000 - FY 2004		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	2001 Odum and Lipps data analysis to determine effectiveness of captive institution's processes and procedures. 2002 USGS study used and grant obtained by Saratoga NFH for Chytrid screening, water qual., and hypovitaminosis.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	27	Develop delisting criteria	Ongoing Current	FY 2000 - FY 2004		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Updates to current Recovery Plan in process since 2003. We plan to publish a draft revised recovery plan for public comment in 2010.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	28	Determine reintroduction sites	Complete	Prior to FY 1995	Prior to FY 1995	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife Service, Division of Refuges and Wildlife, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1992 Wither's M.S. on habitat use & LH. 2000 Parker's M.S. on hab. use & movement. Reintroductions have taken place every year from 1995 to date.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	2	29	Secure candidate sites	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Land acquisition by TNC and USFWS. 2 Safe Harbor Agreements providing private lands for reintroductions FY 2006, and others in the works.
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	3	Move toads/eggs from immediate threats	Obsolete			Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	30	Develop transplant protocol	Complete	Prior to FY 1995	FY 1995 - FY 1999	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	Reintroductions occurring 1995-2006. PHVA developed in 2001 used; Disease study from grant obtained by Saratoga NFH used. Husbandry Manual 2010.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	31	Transplant toad	Ongoing Current	FY 1995 - FY 1999		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	Reintroductions from 1995 to date.
Wyoming Toad (Bufo baxteri (=hemiophrys))	2	32	Monitor introduction	Ongoing Current	FY 1995 - FY 1999		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center	Work type not yet selected	Labor type not yet selected	Informal surveys by USFWS, WGFD, UW, and TNC. Censuses conducted 1993-2006. 2002 USGS study. Formal surveys of Mortenson Lake and 2 SHA sites.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	1	4	Protect habitat through land acquisition	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, U.S. Fish and Wildlife Service, Division of Realty, The Nature Conservancy, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Acquisition: Fee Title, Acquisition: Other, Acquisition: Withdrawal, Other: Administration	Labor type not yet selected	1991:TNC purchased Mortenson Lake area; 1992 USFWS acquired from TNC & incorp'd into NWR System lands. 2 Safe Harbor Agreements with private landowners completed FY 2006 facilitated by Laramie River Conservation District
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	5	Identify limiting factors	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	1998 Cincinnati Zoo reproductive research. 1999 SSP Nutritionist began analyzing diets fed to toads. 2001 Central Park Zoo's Wildlife Cons. Society water chemistry research. 2001 SSP Pathologist and SSP Nutritionist research on nutrition and short tongue syndrome. Captive animals continually monitored for nutrition, breeding and disease factors
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	6	Determine numbers needed in captivity	Ongoing Current	Prior to FY 1995		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement, U.S. Fish and Wildlife Service, National Ecology Research Center, Wyoming Cooperative Fish and Wildlife Research Unit	Work type not yet selected	Labor type not yet selected	Updated based on number of release sites, success of reintroduced animals, and their reproduction. PVHA 2001 used as well.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	1	7	Determine rearing locations	Complete	Prior to FY 1995	Prior to FY 1995	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1993: Captive breeding program initiated
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	8	Captively rear toads	Ongoing Current	FY 1995 - FY 1999		Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1995 to date: every year from 213 to 20,000+ tadpoles and/or toadlets were released.
Wyoming Toad (Bufo baxteri (=hemiophrys))	1	8.1	Wyoming Toad Genetic Study	Complete	FY 2008		U.S. Fish and Wildlife enhancement	Research: Genetics	Internal Administrative	The Wyoming Toad Genetic Study is a result of a \$40,000 "Preventing Extinction" grant from USFWS. The study is being conducted to better understand the genetics of the captive toads and to help manage Wyoming toad breeding. The genetic study is being conducted by the Dexter National Fish Hatchery and Technology Center. Genetic testing will be conducted on all captive Wyoming toads at Saratoga National Fish Hatchery in Saratoga, Wyoming, and the Red Buttes Captive Breeding Facility in Laramie, WY. Genetic testing will also be conducted on frozen Wyoming toad specimens at the Wyoming Field Office in Cheyenne, WY.

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Wyoming Toad (Bufo baxteri (=hemiophrys))	1	9	Form management team	Complete	Prior to FY 1995	FY 2009	Wyoming Department of Game and Fish, USFWS Regional Office 6 - Denver, U.S. Fish and Wildlife enhancement	Work type not yet selected	Labor type not yet selected	1993:Toad Task Force initiated. 1996: American Zoological Association approved an SSP for WY toad. 2001: USFWS appointed Recovery Team. 2008 Recovery Team adopted Terms of Reference for conducting team business.